

TWO NEW SPECIES OF MEGASOMA FROM THE  
UNITED STATES AND MEXICO  
(COLEOPTERA: SCARABAEIDAE)

By O. L. CARTWRIGHT<sup>1</sup>

The first of the two species described below was known from female specimens at the time the description of *Megasoma punctulatus* Cartwright (Proc. Ent. Soc. Washington 54: pages 36-38, 1952) was published, but its description was delayed in the hope that males might be found. Males still have not been collected; however, because of the wide destruction of the flora of the type locality, there seems little use in further withholding the description.

*Megasoma vogti* Cartwright NEW SPECIES

(FIG. 6)

Holotype female.—Length 31.5 mm., width 17.0 mm. Moderately shining, piceous, upper surfaces without pubescence. Clypeus bidentate, the well-developed, erect teeth widely separated by a distance greater than the length of the strongly reflexed, lateral edges, the edges only weakly arcuate from the genae to the teeth; the reflexed, in-curving, posterior edges of the clypeus terminating above the anterior edges of the almost rectangular genae; anteriorly margined between the teeth, the margin smooth. Mandibles strongly tridentate, projecting well beyond anterior edges of clypeus. General surface of clypeus very slightly convex, sloping upward to a median, widely binodose basal prominence, closely, rather finely rugose-punctate throughout. Genae and head posterior to the median prominence finely rugose-punctate, becoming more discretely and moderately punctate basally between the eyes, a median smooth area near occiput. Pronotum  $2/5$  wider than long, angularly widest slightly behind the middle, sides almost straight before and behind the angles, margined except for a short distance along base toward the sides, base sinuate; dorsal area generally convex but with slightly concave lateral margins explanate posteriorly from about the middle; surface quite closely, moderately to coarsely punctate-rugose, the punctures gradually more discrete and larger toward base, a vague, median, longitudinal line indicated by slightly depressed, and closer punctures, punctures of explanate margins shallow, close, mixed, and indefinite. Scutellum margined laterally, the depressed lines inside the margin with very close, fine punctures, disc smooth otherwise except for the V-shaped line of fine punctures basally. Elytra  $1/6$  longer than wide, slightly constricted at basal fourth, punctures of discal areas including first two intervals and the germinate striae, coarse, deep, and about equal in size and depth, gradually finer and less distinct toward sides and apex, sides wrinkled behind the shoulders. Pygidium transversely, strongly convex over basal third, strongly concave over remainder; basal third with close, shallow, moderate, setigerous punctures, the setae quite long and coarse, concave portions with very fine, scattered setigerous punctures, the setae erect and similar but not nearly so dense. Underside, except for legs and middle area of abdominal segments, clothed with very close, fine, decumbent hair. Tarsi of front legs noticeably longer than the tibiae; tarsi of middle and hind legs approximately equal to length of tibiae.

*Distribution:* HOLOTYPE. ♀, USNM No. 66585, collected in S. W. Hidalgo Co., Texas, 20-IX-47, George B. Vogt, at light. One paratype in U.S.N.M., ♀, S. W. Hidalgo Co., Texas, 20-X-46, George B. Vogt, "On twig of tree felled 3 weeks ago in clearing. Head in a gnawed-out niche, ants present. *Prosopis julliflora* Swartz De Candolle."

<sup>1</sup> Associate Curator, U. S. National Museum, Smithsonian Institution, Washington, D.C.

*Remarks:* The female of *Megasoma vogti* (the male is unknown) is most like that of *Megasoma thersites* LeConte. The elytra of the latter species, however, are quite hairy, the lateral margins of the pronotum are not so noticeably explanate posteriorly, and the head is quite different. The clypeus in *thersites* is much wider with the sides higher and more gradually reflexed, the disc flatter with the binodose basal prominence appearing more as a carina along the suture, and the genae are scarcely depressed below the level of the clypeus. In *vogti* the discal area of the clypeus is convex, the binodose prominence forming the edge of the swollen disc. The genae are placed on a lower plane and appear to emerge below the edge of the clypeus.

It gives me pleasure to name this species after its collector, Mr. George B. Vogt, friend, colleague, and a fine field entomologist.

### *Megasoma pachecoi* Cartwright NEW SPECIES

(FIGS. 1-3)

Holotype male.—Length (excluding cephalic horn), 40 mm., width, 23 mm. Shining, piceous, without pubescence on upper surface. Clypeus bidentate, the teeth erect, widely separated, the distance between them greater than the lateral edges to the genae; margined, the margin anteriorly flat to somewhat concave, the upper edges sharply cariniform, laterally rounded, convex; surface laterally concave behind the teeth and sloping quickly into a long, slightly recurved, bifurcate cephalic horn, the clypeal suture traceable up the horn to the bifurcation with the clypeal side dark red-black and a little wider than the black posterior cephalic half of the horn; horn 15 mm. in length, the terminal 3 mm. bifurcate with ends acuminate. Genae densely, finely punctate; base of horn and remainder of head finely punctate, the punctures generally separated by one or two diameters. Mandibles strongly tridentate and projecting in front of clypeus. Pronotum widest behind the middle with the sides straight forward and backward from the lateral angles; base and sides posteriorly with marginal bead, anteriorly the sides without bead and rounded upward into high, sharp, diverging horns near the anterior angles; anterior beading between the pronotal horns, wide, flat and smooth; base sinuate, posterior angles distinct; disc strongly convex with a strong, slender, very slightly bifurcate median horn, arcuate forward toward the cephalic horn; in line with and just inside the anterior lateral horns on each side, the surface is depressed in a deep fovea; except for a smooth midline spot back of the median horn, the surface sculpture is generally finely scabrous with very fine dense wrinkles and punctures, especially so laterally and posteriorly from the base of the median horn; the triangular area between the pronotal horns is slightly smoother. Scutellum densely, very minutely punctate. Elytra approximately 1/12 longer than wide, weakly constricted at basal third; costae only vaguely evident, surface very finely and densely scabrous with minute punctures and, in addition, scattered, larger, more discrete, fine punctures separated generally by six or seven times their diameters, only those outlining the sutural interval being larger and closer. Pygidium densely, minutely punctate with a few fine, decumbent hairs basally at the sides. Most of the underside, except for the legs and middle areas of the abdominal segments clothed with fine, decumbent hair. All tarsi noticeably long, longer than the tibiae.

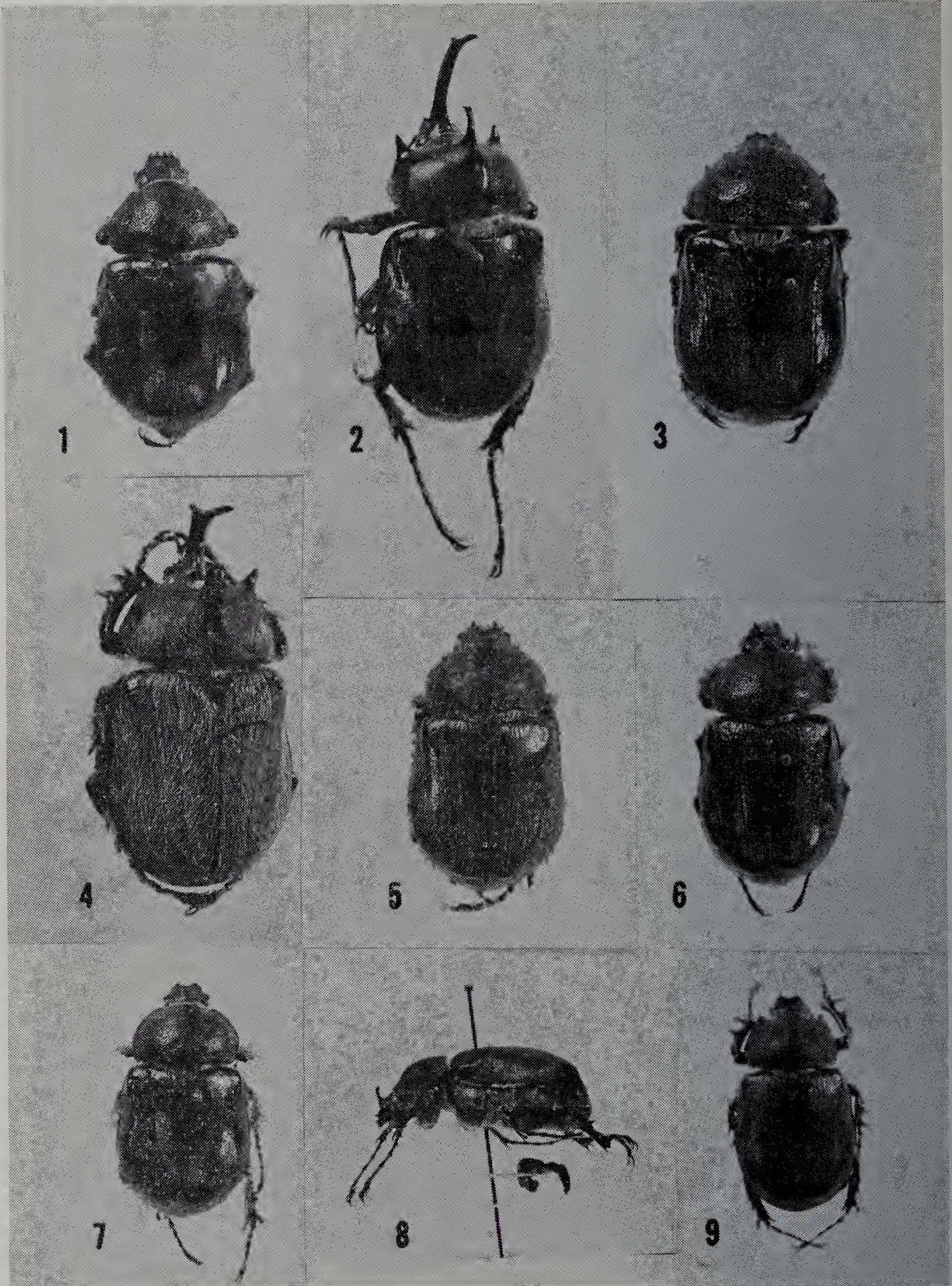
Allotype female.—Length 36 mm., width 21 mm. Shining, piceous, lacking pubescence on upper surface. Clypeus bidentate, the well developed erect teeth widely separated by slightly more than the length of the strongly, gradually reflexed, quite strongly arcuate, lateral margins, the lateral margins ending noticeably above the anterior edge of the genae; edges of clypeus and teeth thin and sharp; clypeus more or less flat though weakly concave behind the anterior teeth and the thin, transversely compressed, sharply angled, median, posterior tubercle; surface of clypeus everywhere densely, rugosely punctate with mixed moderately fine and minute punctures. Head and genae similarly punctate anteriorly, especially in

the area back of the median tubercle, posteriorly becoming much more coarsely punctate, except for a median smooth area basally; mandibles tridentate, projecting well beyond anterior edge of clypeus. Pronotum almost twice as wide as long, widest slightly behind the middle, the sides almost straight before and behind the angles, base sinuate and without margin, lateral margin interrupted for a short distance midway between anterior and lateral angles; surface unevenly convex, coarsely punctate throughout with the punctures of midline and toward the anterior angles tending to coalesce in meandering lines, punctures more discrete over the disc, somewhat smaller and closer at extreme edges. Scutellum smooth. Elytra 1/8th longer than wide (21 x 24 mm.), slightly constricted at anterior fourth, discal punctures coarse but relatively shallow, separated by one to two diameters, gradually decreasing in size to fine punctures laterally and apically, costae evident but not well-defined, some transverse wrinkles laterally, especially near shoulder. Pygidium transversely convex over basal third, strongly concave over middle third, apically flattened; basal third closely, finely punctate with fine, decumbent hair basally toward sides, concave area rugulose transversely, flattened apical area longitudinally wrinkled. Underside except median area of abdominal segments and legs, clothed with close, coarse, decumbent hair, Middle tibiae relatively slender at apical third, about 1/6 wider at basal third. All tarsi quite long, with those of middle legs approximately 1/8 longer than the tibiae.

*Distribution:* HOLOTYPE ♂, U.S.N.M. No. 66586, Cd. Obregon, Sonora, México, 18-20, IX, 1959 at light. Wm. W. Gibson. ALLOTYPE ♀, Cd. Obregon, Sonora, México, 21-IX-1959 at light. Wm. W. Gibson. PARATYPES: 12 ♂♂, 53 ♀♀, Ciudad Obregon, Sonora, México, mostly at light, by Dr. Wm. W. Gibson, 16 to 30, September, 1959; 6 ♂♂, 6 ♀♀ from the same locality, September 1960, by Dr. Gibson (in Howden collection); 1 ♂, 9 ♀♀, from the same locality, 20 to 24 September 1959, by J. A. Sifuentes; 3 ♂♂, same locality, 19, 30 August 1956, circa luz, F. Pacheco M.; 2 ♂♂, 1 ♀, same locality, Sept. 5, 6, 1957, at light, by A. W. Vasquez (in Vasquez collection).—1 ♂, Valle del Yaqui, Sonora, México, Block 306, 10-IX-55, F. Pacheco M., circa luz; 1 ♂, same locality, Block 910, 21-IX-57, F. Orozco, en habitacion; 1 ♀, same locality, Block 910, 22-VIII-57, en habitacion, R. Garza S.—1 ♂, 1 ♀, Esperanza, Sonora. 4.IX.55, A. Zazueta N., circa luz; 1 ♂, same locality, circa luz, A. Zazueta N.—4 ♂♂, Novagoa, Sonora, México, Sept. 5, 1957, A. W. Vasquez (in Vasquez collection).—3 ♂♂, 35 mi. N. of Los Mochis, Sinaloa, México, 23.IX.59 at light, local resident.

Nearly 400 specimens collected by day near Tezopaco, 60 km. E. of Ciudad Obregon were lost in a fire which destroyed Dr. Gibson's collection.

*Remarks:* Males vary from 33 to 40 mm. excluding the cephalic horn, 35 to 48 mm. including the horn, and 19 to 24 mm. in width. Females vary from 29 to 37 mm. in length and 16 to 21 mm. in width. A few of the males approach the males of *M. punctulatus* in surface sculpture but they are more minutely, finely and discretely punctate. Most specimens present a smooth appearance with the elytra longer and the costae less distinct than in *punctulatus*, not traceable by lines of coarser punctures. All tarsi are much longer than the tibiae. The females differ from females of *punctulatus* in having the pygidium pubescent only narrowly at the base, the elytra proportionately longer and more noticeably shining, the cephalic tubercle more acuminate, the genae lower, emerging under the ends of the clypeal margin, the lateral clypeal margin reflexed higher and extending back farther, the extreme sides of the pronotum more evenly rounded, the



FIGURES 1-3. *Megasoma pachecoi*, n. sp. 1—♀ . 2—♂ . 3—♀ allotype.

FIGURES 4-5. *Megasoma thersites* LeConte. 4—♂ . 5—♀ .

FIGURE 6. *Megasoma vogti*, n. sp. 6—♀ holotype.

FIGURES 7-9. *Megasoma punctulatus* Cartwright. 7—♀ . 8—♂ . 9—♂ .

middle tarsi relatively longer than their tibiae, and the middle tibiae noticeably much narrower at apical than at basal third. In *punctulatus* the middle tibiae are very little narrower at the apical third than at basal third.

I am very pleased to concur with Dr. Gibson's wish and name this species after Prof. Francisco Pacheco M., presently at the Colegio de Post-Graduados, Chapingo, México.

### KEY TO THERSITES GROUP OF MEGASOMA

1. Upper surface of males clothed with noticeable, yellowish, recumbent hair; females with hair much less noticeable but evident at sides and apices of elytra; Baja California (Figs. 4-5) -----THERSITES LeConte  
Upper surface without hair ----- 2
2. Female with clypeus convex and swollen, basally with widely binodose edge; pygidium with erect hair throughout; male unknown; Texas (Fig. 6)-----VOGTI new species  
Females with clypeus flat, not convex and swollen, the base with single tubercle; pygidium largely hairless, at most with a very few, sparse, erect hairs over apical half ----- 3
3. Males with upper surface dull, finely, densely punctulate or scabriculate, pygidium with recumbent hair throughout (worn specimens excepted); female genae quadrate, noticeably angulate externally, and anteriorly meeting clypeus at approximately same level; Arizona (Figs. 7-9)-----PUNCTULATUS Cartwright  
Male with upper surface shining, at most minutely punctulate or alutaceous, pygidium with hair only at base; female genae triangular, not angulate externally, and anteriorly meeting clypeus at a lower level under the high, thin, recurved edge of the clypeus; Mexico (Figs. 1-3)-----PACHECOI new species



### NOTICE

The DIRECTORY OF ZOOLOGICAL TAXONOMISTS, published in 1961 by the Society of Systematic Zoology and the Southern Illinois University Press, is now available to all zoologists at the nominal charge of \$2.00 per copy.

The Directory includes the names and specialties of 9,000 persons supposed to be interested in the taxonomy of some group of animals, and the names, addresses, and detailed specialties of 7,000 persons who supplied data about themselves. The volume lists these specialists in a taxonomic arrangement by their interests, as well as alphabetically by name. It consists of 425 pages, fully bound.

During the first year copies were offered to members of the Society of Systematic Zoology and other zoologists listed in the Directory for \$2.00 each for personal use. Copies were sent free to any non-American listed in the Directory upon receipt of verification of his address. Library copies were billed at \$10.00 each.

It is now desired to distribute the remaining copies before they are completely out of date. A special offer is therefore made of \$2.00 each for copies in any quantity to any individual zoologist, postpaid if accompanied by payment.

Address orders and payments to Southern Illinois University Press, Carbondale, Illinois, U.S.A.